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ABSTRACT

The traditional model used by all institutions of higher education include the three broad areas of teaching, scholarship, and service as part of faculty evaluation. This paper examines the definition of scholarship in higher education, focusing on current definitions of scholarship, administrators' perceptions about scholarship, measures of scholarship, and emerging trends in recommendations about scholarship. The traditional model of scholarship ranked teaching ahead of research and service, unlike recent practice with its emphasis on research and publication. The majority of faculty in the social sciences, however, believes in the importance of research and publication in scholarship, but feel that too much emphasis is placed on publication. Administrators have generally approved of research and publication as a method of evaluating contributions made by faculty. Measures of scholarship in recent years have centered on the quantity of articles and monographs produced by faculty members. Recent trends in the definition of scholarship have centered on the need to move beyond publication counts in the evaluation of faculty. Some researchers suggest that new definitions of scholarship should place more emphasis on teaching and service. (Contains 67 references.) (MDM)

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A REVIEW OF THE CONSTRUCT OF SCHOLARSHIP IN THE LITERATURE

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A REVIEW OF THE CONSTRUCT OF SCHOLARSHIP IN THE LITERATURE

Abstract

The traditional model used by all institutions of higher education include the three broad areas of teaching, scholarship, and service as part of faculty evaluation. The author reviews the literature to explore the role scholarship plays in faculty evaluation. Five major categories relative to scholarship were identified: current definitions, faculty perceptions, administrators' perceptions, measures of scholarship, and emerging trends in recommendations about scholarship. It was within this context that this review was undertaken and situated.

A REVIEW OF THE CONSTRUCT OF SCHOLARSHIP IN THE LITERATURE

Introduction

The traditional model used by all institutions of higher education, regardless of discipline, include the three broad areas of teaching, research, and service as part of faculty evaluation (Braxton & Toombs, 1980; Crosson, 1983; Seldin, 1984). In earlier times, the element of teaching was considered to be the most important, followed by service, then research (Boyer, 1990). This traditional model continues in use today and there is widespread agreement over its use regardless of institutional type, purpose, or discipline. However, there has been a shift in the importance assigned to each element of the model based on institutional type, purpose, and discipline.

Over the past twenty years, the new ordering of the model's elements in doctoral granting institutions in almost all disciplines ranks research as the most important criteria, teaching as second, and service as least important (Blake & Tjoumas, 1990; McShane & Douzenis, 1987; Seldin, 1984). According to the literature, there are no studies which provide evidence on the ranking of the model's criteria for professional schools of education. However, the following five major categories relative to scholarship were identified in the literature: current definitions of scholarship, faculty perceptions about scholarship, administrators' perceptions about scholarship, measures of scholarship, and emerging trends in recommendations about scholarship. It was within this context that the following review of the literature was undertaken and situated.

Current Definitions of Scholarship

Traditionally the term "scholarship" has come to mean being involved in research and publication (Boyer, 1990; Miller & Serzan, 1984; Sundre, 1990; West, Hore, & Boon, 1980). It has tended to be narrowly defined as systematic inquiry leading to products such as publication of books and articles in professional journals (Blackburn, Bieber, Lawrence, & Trautvetter, 1991; Pellino, Blackburn, & Boberg, 1984). This concept of scholarship, in and of itself, is not a problem. Nor is the need for research and publication in question. The problem is that neither all institutions nor all members of faculty within these institutions agree and/or support the current narrow definition of scholarship/publication. As such, the standard which is created by this narrow definition and used to evaluate faculty contributions is inherently inappropriate for these institutions and faculties.

Miller (1984) asserts that there should be no agreement on categories of scholarship/publication. He favors the use of a definition which is dependent upon the nature of the institution which uses it. For example, how two-year colleges define scholarship and publication depends on their missions. These missions are different, not better or worse, but different from those of research institutions.

Centra (1989) agreed with the assertion made by Miller (1984) by stating that the definition of scholarship depends on institutional type and purpose. However, Centra expands upon Miller's assertion by stating that acceptable performance in terms of scholarship varies, not only by institution and institutional purpose, but also by discipline. For example, he reports in a survey he conducted in 1977 involving

department chairs, that they indicated that journal articles and grants were critical to the evaluation of scholarship of faculty members in the natural sciences.

Despite what one thinks, the current narrow definitions of scholarship and scholarly contributions are a recent phenomenon. In earlier times, scholarship was a broader concept than it is now (Boyer, 1990). According to Boyer (1990), scholarship referred to a variety of creative works the integrity of which was measured by the ability to think, communicate, and learn. In fact, Cardozier (1991) suggests that in many institutions the lack of research and publications had no influence on promotion and tenure decisions until after the 1960's and Sputnik. This was validated by Beiber and Blackburn (1989). However, what we now have in academe is a departure from scholarship's earlier, more comprehensive meaning. We have a more restrictive view of what it is, or is not scholarship.

Recently, scholarship has become synonymous with a number of other terms. Some of these include "research," "research publications," "publications," "faculty productivity, "scholarly works," and "publication productivity," to mention a few. According to Sundre (1990), the discussions surrounding the construct of faculty scholarship are numerous and remain largely uncoordinated, unspecified and void of empirical attention. Therefore, these lack definitional clarity and consensus. However, these definitions are still closely associated with research and publications. In other words, the main issue surrounding publishing is the limited way in which publications are defined and counted (Pellino et al, 1984; Seldin, 1984; West et al, 1980). These observations are shared by others in the field (Balch, 1980; Boyer,

1990; Forbes, 1977; Hays, 1989; Holt, 1988). This may be one of the reasons that O'Reilly (1989) asserts that the definition of scholarship has been misused in the process of making important formal decisions which affect faculty.

Sundre (1990) reports that the main focus of the criticisms which surround the construct of scholarship is grounded in and centered on the narrowness that its operational definitions have taken on over the years. She calls for expanding and broadening the definition of faculty scholarship to include components of those activities, processes, and products beyond those traditionally assessed in the faculty evaluation process. This call is echoed by others (Boyer, 1990; Forbes, 1977; Miller & Serzan, 1984; O'Neill, 1987; Seldin, 1984). Sundre (1990, p. 4] believes that, "...as with most constructs, scholarship may be sufficiently complex as to defy a single definition; the challenge may be to provide variations on the definition for faculty members within different disciplines and fields."

In a later study, Sundre (1992) explored, expanded, and clarified the content domain of the term scholarship. It was motivated by, and built upon contributions and suggestions from previous studies such as Braxton and Bayer (1986), Braxton and Toombs (1982), Creswell (1985, 1986), Pellino et al (1984), and Sundre (1990). The purpose of this research was to provide definitional clarity to the faculty scholarship construct by determining what faculty perceived as attributes of scholarship. According to Sundre (1990), this was the first time that faculty, rather than existent literature, were used to attempt to define scholarship.

Using a qualitative approach, Sundre (1990) asked faculty members to generate components and attributes of scholarship. The results, obtained from full-time faculty from a doctoral-granting institution, was the development of an inventory of 249 attributes of faculty scholarship in the disciplines of theater, art, dance, and music. This inventory incorporated all the traditional role components of a faculty member as well as a large number of attributes not previously specified for these disciplines.

Sundre (1990) states that her study provides evidence that the construct of faculty scholarship is more complex than previously recognized, and at a minimum, should no longer be used as a synonym for publication. Her findings apply to one regional doctoral-granting institution in the disciplines of theater, art, dance, and music. Therefore, they may not apply to other regional doctoral-granting institutions in these disciplines, or others. However, the listing of attributes developed as the result of this study provide an excellent starting point for the specification of the definition of scholarship at other institutions with similar or different missions as well as other disciplines.

Faculty Perceptions about Scholarship

According to McShane and Douzenis (1987), the majority of faculty approves of research and publication as a method of evaluating scholarly contributions, but feels that too much emphasis is placed on publication. This conclusion is corroborated by others who assert that too much emphasis on publication takes faculty away from students, and that this adversely affects the quality of teaching

Carnegie Foundation, 1989; Donald, 1985; Pellino et al, 1984; Schuster, 1990; Watkins, 1990).

Fox (1992) conducted a survey of the attitudes that social science faculty have about scholarship, as measured by publication productivity, versus teaching relative to departmental reward structures. The findings of this study for the social sciences indicates that faculty members whose publication productivity is high are not strongly invested in both research and teaching. These results suggest that faculty members do not perceive that scholarship and teaching activities represent different aspects of a single dimension, but are different dimensions which are often at odds with each other. In other words, faculty perceive scholarly activities to be in competition with those of teaching. Comparable analyses are needed for faculty members in schools of education.

Faculty in almost every institutional type perceive pressure to obtain external funding, conduct research and publish results (Blackburn et al, 1991; Lucas & Harrington, 1990; Pitz, 1992). The expectation to publish and its resulting pressure, place an unnecessary burden on faculty Seldin, 1984). This burden is counterproductive to quality publication output since creativity does not thrive when faced with deadlines and pressure to publish (McShane & Douzenis, 1987). Moreover, faculty are of the opinion that administrators rarely provide guidance on what is expected of publications and do not explain the criteria used to evaluate publications Sachs, 1988). They also feel that the criterion most often used to make formal decisions about their publications is the quantity of publications and that there

is little or no regard given to the quality or merit of the publication (Carnegie Foundation, 1989; Carnegie Foundation, 1989; O'Reilly, 1989). In addition, they feel frustrated by the fact that they are supposed to conform to the conventional view that they are all scholars and publishers while they know they are not (Pellino et al, 1984). As a result, faculty members feel that they would be better teachers without the pressures of doing research and publishing (Cardozier, 1991). Despite these arguments, many still see that research and publishing are essential to improving the quality of teaching. However, there is only marginal evidence to support this rationale (Centra, 1989; Feldman, 1987; Fox, 1992; Wanner et al, 1980).

Boice and Johnson (1984) reported that their study of the perceptions of 685 faculty members at a doctoral-granting university identified patterns and conditions under which faculty write, factors which inhibited writing habits, and techniques employed by faculty to facilitate the writing process. Their findings demonstrated the following: that faculty perceive that too much time and effort is devoted to the process of writing and publishing; that they used unsystematic methods to write; and that they felt the lack of time was the major obstacle to producing written work.

Bieber and Blackburn (1989) state that faculty believe that doing a study today is more difficult and complex than it was yesterday. In order for research to be considered "quality" research, it now requires a large data base and the most sophisticated treatment of data. As such, faculty feel that it takes a longer period of time and a combination of expertise to produce an acceptable article. This is one of

the reasons cited by faculty for not increasing individual publication rates, and for granting a greater amount of credit for articles which are co-authored. It has also been reported that 83% of faculty are now saying that tenure was more difficult to obtain without evidence of extensive publication (Carnegie Foundation, 1989). This figure is up from 44% since 1969.

Baird (1980) conducted a national study consisting of 511 chemistry, 598 psychology, and 584 history faculty members of doctoral programs. This study explored the relationship between a department's scholarly productivity and its reputation within it field. It reported a substantial positive relationship between the two correlates, thereby promoting the idea that faculty perceive scholarly contributions and reputation as indicators of the quality of a department.

Administrators' Perceptions about Scholarship

Administrators approved of research and publication as a method of evaluating scholarly contributions made by faculty (McShane & Douzenis, 1987; Miller & Serzan, 1984; Seldin, 1984). While the majority of administrators have significantly higher expectations of faculty for scholarship and publication, those at research universities place more importance on research and publication as evidence of scholarly contributions than do those at liberal arts colleges (Pellino et al, 1984; Seldin, 1984). The importance placed on the role of research and publication is centered in the desire for securing, maintaining, or expanding the prestige of the university which results in a larger share of monies for a university Blake & Tjoumas,

1990; Watkins, 1990; West et al, 1980). In addition, it is felt that publication rates provide evidence of a general high energy output of faculty (Braxton & Toombs, 1982).

Because some administrators are of the opinion that there is too much superfluous publishing, they have adopted policies which limit the number of publications (Mooney, 1991). Stanford University and Harvard University Medical School are two examples of institutions which have adopted such policies. This is being done in an effort to emphasize quality rather than quantity and not equate the two. It is also being done to lessen the burden of peer reviewers, to enable faculty to spend more time with students, and to discourage the proliferation of narrowly specialized research.

According to Suppa and Zirkel (1983), their study of 494 deans and chairpersons revealed the following information: 89% regarded articles in refereed journals as significant evidence for making promotion and tenure decisions; 72% of the respondents identified the writing of books and monographs as lesser scholarly activities; 7% felt that obtaining funding grants was perceived as important; 69% considered conference presentation significant; 53% gave more weight to non-refereed journals than to publications in regional or state journals which were refereed; and 54% felt that the importance of publications in refereed journals has grown in importance during the past five years.

Creswell and Brown (1992) state that administrators are in a position to facilitate and enhance the scholarly activities of their faculty members. This has been

echoed by others (O'Connell & wergin, 1982). Creswell and Brown's (1992) study consisted of interviews conducted with 33 academic department chairpersons representing a wide variety of disciplines, including education, at 15 research institutions. They identified seven categories and three unifying roles which administrators felt enhanced scholarly activities. Those were as follows: 1) administrative duties (provider, enabler); 2) externally oriented responsibilities (advocate); and 3) good interpersonal relations (mentor, encourager, collaborator, challenger).

The results of this study are useful for identifying concepts of the role of administrators which correlate to improving faculty scholarship. However, as a model-developing study, there are three major limitations. First, the 33 cases used in the study were drawn primarily from doctoral-granting research universities and do not give a complete picture of other types of institutions. Second, the study was limited to the perspectives of chairpersons. Faculty perspectives are lacking and would be necessary for completeness since the use of chairs' self-reported perspectives may differ from actual behavior. Finally, neither gender or racial issues were addressed in the study. Despite these limitations, the work of Creswell and Brown (1992) is valuable as a tentative list of intervention strategies which can be expanded upon.

Measures of Scholarship (Publication)

Publishing is a word that bears a powerful message in academic circles. Research on this subject traces it roots to approximately 75 years ago, but little

attention was given to publishing until the 1960's (Bieber & Blackburn, 1989). Since that time, the professional societies and academe have persisted in pressuring faculty to publish promiscuously (Spaltro, 1980).

The meaning of publishing and methods of evaluating it vary from institution to institution. Many universities, as part of the their evaluation processes and collective bargaining agreements (or facsimiles thereof), have established quotas for the number of articles expected to be published each year. In some cases only senior authorship or publication in refereed journals are counted as publications for evaluative purposes (Bracey, 1989). In other cases, administrators evaluate scholarship primarily on the quality of research publications in which the articles appear, while still others simply concentrate on the numbers of publications produced (McShane & Douzenis, 1987).

Others question whether standards of evaluating faculty productivity should be the same across disciplines (Cardozier, 1991). Regardless, expectations and measures of scholarly publication are by nature qualitative and subjective and difficult to measure (Salomone & Vorhies, 1985; Seldin, 1984; West et al, 1980). Properly assessing faculty output is an important problem whose measurements hinge on accurately assessing the quality and quantity of knowledge that faculty produce (Bieber & Blackburn, 1989; West et al, 1980). However, before presenting the literature on measures of scholarship and the methods which should be used to evaluate publication, the central issue of faculty and administrator perceptions about scholarship will be presented and discussed.

Quantitative and Qualitative Measures of Scholarship

According to Seldin (1984), policies, practices, and measures currently used to evaluate faculty performance in the area of scholarship are becoming more systematic. In addition, virtually all relevant information is considered in the evaluative process. Accurate appraisal of this information hinges on measuring the quantity and quality of a faculty member's work (Centra, 1977; 1989). Therefore, measures of evaluating faculty publications as one measure of evaluating scholarly contributions can be largely grouped into quantitative and qualitative categories. It is for this reason that the literature has been examined from both of these perspectives.

Quantitative Perspectives

One of the most current practices which has emerged in faculty evaluation has been the use of publication counts (Seldin, 1984; Sundre, 1990; Walberg, Rasher, & Mantel, 1977). This is not to be confused with citation analysis which will be discussed in the "qualitative" section of this review. Publication counts and other methods of evaluating publications have been observed and studied by many over the past 20 to 30 years. This discussion will begin with those focusing on publication counts.

Smith and Fiedler (1970) assert that measuring quantity of faculty performance in terms of publication counts has limitations and cite that a poorly conceived and written article published in a badly edited journal may count as much as a major contribution to the field which is well done and published in a refereed journal. They go on to state that publication norms and counts differ, or should

differ, from field to field. For example, articles in chemical journals are short and more easily written than those in fields such as philosophy.

Methods of evaluating the scholarly work of faculty are beginning to appear on the international front. The results of a study of faculties of Canadian schools of education conducted by Arlin (1978) imply that the use of publication counts should be only one aspect of evaluating scholarly work. He cautions against the solitary use of publication counts and advocates some measure of quality which encompasses more than a quantitative focus. Evaluation of scholarly work through the use of quantitative methods only may be deleterious to the field of education by contributing to the proliferation of articles which are of questionable value (Arlin, 1978, O'Reilly, 1989).

Also on the international front, is the discussion by West, Hore, and Boon (1980) regarding the development of quantitative measures of evaluating the work of faculty members of Australia's institutions of higher education. These authors question reliance on quantitative measures despite their feelings that administrators seem to favor using quantitative measures in faculty evaluation procedures.

According to West et al, (1980), the use of publication counts is associated with problems. One problem they identified is the effect that faculty personality has on publication rates. Some faculty are quick to publish, while others take more time. Another difficulty with using publication rates is that a single paper may contribute to more than one hundred others.

Seldin (1984), contends that the use of publication counts as an appraisal of scholarship is hazardous. He cites the example of some professors who write ten articles, while others write the same article ten times. According to Seldin, counting only refereed journals as the only bona fide source of publication counts also falls short in evaluating scholarship since there are many excellent journals which are not refereed and many other forms of scholarly work beyond publication. He also states that refereed journals are subject to editorial needs of the moment, varying standards, and human fallibility.

Bieber and Blackburn (1989) studied faculty research productivity over time as measured by publication counts. This study differed from others because it took into account the fact that both the amount of available journal space and the number of faculty competing for publication had changed over time. Their results demonstrated that the average available space in journals per faculty member has essentially doubled since 1972, thereby decreasing the level of competition among faculty to publish. Their study also showed that more, rather than fewer, faculty members are publishing than ever before. However, the study found that faculty effort to publish needs to almost double the publishing efforts of their 1972 counterparts since, in 1972 units, an article published in 1988 is only about half of what it was in 1972. This has resulted in an improvement in quality since articles published in 1972 would, more often than not, not be accepted today.

In addition to publication counts, there are other issues in the literature which are germane to discussions about quantitative methods of evaluating publications.

The information which follows is being included in this review in order to place the merits of the preceding material into perspective.

Ladd and Lipset (1979) and Berelson (1960) report that publication is performed by relatively few faculty members with almost 90% of the articles being written by about 10% of college and university faculty. More recently, Boice, Jones (1984) and Ladd (1979) found that nearly three-fifths of full-time faculty have never published any sort of book, while only approximately one-fourth have published extensively (defined as 20 or more articles and/or three monographs).

Blunt (1976) stated that the actual number of publications needed to achieve tenure and promotion is not large. For promotion to the rank of associate professor from that of assistant professor, he stated that an average of three refereed articles is required, while an average of five is required for promotion to the rank of full professor.

Baird (1980) studied the relationship between ratings of graduate departments and faculty publication rates. He found that the utility of the ratings as an indicator of the scholarly contributions of single departments is questionable. In addition, he found that any particular publication measure should not be used as an overall measure of a department's "quality."

As a result of their study, Wanner and others (1980) found that a unitary model of scholarly productivity cannot be assumed to operate equally in all academic disciplines. They demonstrated that mechanisms used to determine publication counts are different among disciplines. Their data showed that, independent of

publication counts, the process of determining scholarly output depends on the intellectual context of each discipline. One issue this study raises is the influence of social structure on publication and productivity. For example, what constitutes an article and publication varies across disciplines.

Wilson and Mandell (1981) proposed a model by which professional activities, one of which is publication, may be quantified. The model consists of possible professional activities, each given a weighted point value. Baseline points gave parameters upon which all faculty were expected to be evaluated, and merit points were calculated for each of these activities. The resulting numbers were then used to reward faculty performance. Without subjecting the model to any study, its effect and validity are questionable. However, it does have value by serving as a catalyst for suggesting other areas of continued study, or approaches to faculty evaluation.

Miller and Serzan (1987) report that little is known about the criteria of a refereed journal or the distribution of these journals across disciplines. They claim that the research in this area which separate refereed from non-refereed journals has not defined the quality or characteristics necessary to make the distinction between the two types of journals. However, despite this testimony, they cite evidence which demonstrates that members of promotion and tenure committees often do not read a candidate's publications, but judge the quality of an article by the reputation of the journal in which it appears. Moreover, according to Seldin (1984), referees have been known to reject manuscripts because of differences in philosophical, rather than scholarly, standpoints.

DeYoung (1985) contends that terms such as "production" and "output" are industrial concepts and should not be used in conjunction with the faculty evaluation process. He cautions against the use of such terms and posits that their continued use underscores the penetration of the technologic model into academe.

Contrary to figures cited earlier in this section, Mooney (1991) reports that according to unpublished data from the federal government's Department of Education, the proportion of faculty at doctoral and research institutions who have published refereed articles in 1986 and 1987 was 70%. Counter to the figures cited by Mooney (1991), Cardozier (1991) reports that no one has documented substantial changes in faculty research and publication since the Ladd and Lipset study of 1979, and he does not feel that there is reason to believe that the information obtained from that study has changed much since that time.

Qualitative Perspectives

One of the most major methods which has emerged as the state of the art analysis of assessing scholarly work is citation analysis (Centra, 1989; DeYoung, 1985; Seldin, 1984). This methodology, made possible by the creation of the Social Science Citation Index (SSCI) in 1966, uses information on the number of times an article or book is cited by others in a given year. The SSCI indexes over 2,500 journals and is used to count citations as a measure of assessing faculty scholarship [31, 35]. Studies which have examined the use and validity of this measure of assessing the quality of scholarship follow.

Meyers (1970) examined the validity of using citation counts as a measure of productivity in the field of psychology. The results of his study, which spanned works published in this field between 1962 to 1967, found citation counts to be a valid measure of judging the quality of scholarly work. These results were confirmed by a similar study done by Walberg, Rasher, and Mantel (1977).

Smith and Fiedler (1970) were among the few researchers who mentioned advantages to the use of citation analysis as a measure of evaluating publications. These include: citation index is not greatly influenced by quantity thereby emphasizing a publication's qualitative aspects; quantitative aspects can be eliminated from this measure by simply dividing the number of citations by the number of publications; the index of citations is relatively easy to obtain if the field has been referenced by the SSCI; citation indexes are based upon evaluations of research as opposed to personal evaluations; and, finally, citation by colleagues can be viewed as equivalent to their having a voice in the outcome of evaluating the merit of one's scholarly work.

Despite the advantages cited by Smith and Fiedler (1970), they also reported limitations. First, a work may not be recognized for a considerable period of time. Second, a work may become so famous that it becomes public domain and is no longer cited by name. An example of this is the Student's t. Third, differences in fields needs to be considered. Heavy competition for citation may exist in some fields, such as chemistry, but not in others. Finally, there may be inherent biases and

an "old boy network" at work because of the fact that a researcher has a choice in the sources cited to support their particular work.

Kroc (1984) studied the use of citation analysis on 51 schools of education. Although he found the SSCI useful and a valuable source of information, some practical problems and troublesome issues were identified with relying on this methodology as the major source of evaluation scholarship. Some of these include: the confusion created when two authors in a field have similar names, introducing a source of error; concerns raised by the practice of self-citation used by some scholars; criticism that the use of citation analysis is biased towards the logical positivism and technological paradigms of hard science; effects which shifts in research interest have within a field; the fact that SSCI only references the first author's name in the case of citing multiple authors; and the fact that many quality journals are not included in those referenced by the SSCI.

Menges (1984), felt that the use of citation analysis was one, and only one method of measuring the value of scholarship. He posits that it is one way of assessing the impact that a scholarly work has in a field by providing information on how other scholars have reviewed and use a scholarly work. Miller [44] agrees with this assessment, however advises that caution be exercised when heavily relying on citation analysis as the major source of evaluation scholarly works. Menges [41] does note that the use of nonprint evidence of scholarship should be considered in evaluating scholarship, and these are not referenced in the SSCI. This is a disadvantage of this method of evaluation.

DeYoung (1985) feels that citation analysis, as a sophisticated technique for evaluating publications ignores difficult questions raised by the use of such measures. Some of the pitfalls inherent in this technique consist of: bias against scholarship not found in officially published forms (journals or books); failure to consider that some educational subspecialties, such as art education and philosophy, are less entrenched in the technological myth than are others; and overly optimistic notions of the scientific nature of education research would be applied to education practice. He asserts that any one methodology, regardless of its simplistic appeal, cannot stand in the place of understanding the complex world of academic scholarship and should only serve as a tool in its pursuit.

Centra (1989) reports that citation analysis is increasingly being used by personnel committees, particularly those charged with the responsibility of making decisions about promotion and tenure. Centra identifies three problems with citation analysis as a measure of performance. First, there are differences in citations by discipline. Second, citations may be critical rather than positive. Third, there is the possibility that the significance of work produced may not be recognized by contemporaries.

Baird (1986) examined the correlates of average departmental scholarly activities in the form of publication rates in three disciplines: chemistry, history, and psychology. The national sample of this study consisted of 511 chemistry, 584 history, and 598 psychology faculty members from 24 chemistry departments, 25 history departments, and 25 psychology departments. The results of the study identified

three common correlates which enhanced the quality of scholarly work: 1) the presence of well trained faculty; 2) able students; and 3) support for scholarly activities. Group morale, humaneness of the environment, and collegiality were not found to be related to the quality or quantity of scholarly activities.

One of the key result of Baird's study was the pattern of variables faculty members associated with scholarly productivity varied by discipline. This variation was rooted in the discipline's tradition and operating procedures. Knowledge of these discipline-related patterns may increase an understanding of the factors which promote scholarship in other disciplines.

Nelson, Buss, and Katzko (1983) studied other procedures for assessing the quality of scholarly publications. They identified and discussed using direct and indirect evidence for evaluating publications. Direct evidence include peer reviews of articles or books as well as citation counts while indirect measures are those which apply to the rating of the journals publishing the articles.

In addition to the problems of using citation analysis previously identified by others, Nelson et al (1983) also feel that the use of this citation analysis as a direct methodology is difficult to justify because of other technical problems which arise. Some of these include: differences in citation habits between disciplines making cross-disciplinary comparisons difficult; multiple authorship in some disciplines is rotated or assigned alphabetically making it difficult to index research done by an individual under other names; and length of time it takes to derive citation index because this methodology requires citation by others in subsequent publications

making citation index not suitable for use at salary and promotion hearings where the previous year's publications are an issue.

Emerging Trends in Recommendations for Expanding the Definition of Scholarship

In a recent survey of academic vice presidents and deans at more than eight hundred colleges and universities, Miller (1984) discovered that there was overwhelming support for viewing scholarship as more than research. Others have found that faculty agree with the association of research and publication [39, 40], but they are of the opinion that the scope and definition of scholarship and publication should be expanded and be more inclusive (Boyer, 1990; Mayer, 1984; Seldin, 1984; Sundre, 1990). This growing body of evidence supports the creation of new definitions for these terms. However, before a new definition can be developed, some reflections on how scholarship could be expanded need to be considered. The following authors provide food for thought for framing and shaping the construct of scholarship and publication.

Forbes (1977) defines scholarship as the act of studying and learning and, as such, states that it has little, or nothing to do with publication. He posits that the traditional definition of scholarship has inherent biases which exclude the perspectives of Native American, Chicano, black, and other non-European perspectives.

Forbes (1977) accepts that one aspect of scholarship is publication. However, he questions the value of limiting scholarship to publication producing works to which only other scholars are exposed. He concludes that this limitation breeds an incestuous relationship between professors which corrupts knowledge by perpetuating

ethnic, cultural, gender biases, and is the highest form of academic elitism. His opinions are captured by T.S. Eliot (1939, pg. 38) who said: "...we write for our friends, most of whom are writers, or for our pupils, most of whom are going to be writers; or we aim at a hypothetical popular audience which we do not know and which perhaps does not exist. The result, in any case, is apt to be a refined provincial crudity."

Seldin (1984) calls not only for a redefinition of the term scholarship, but also suggests embellishing the meaning of the term publication. He believes that paper-based publication is becoming anachronistic and, as such, alternative methods of publishing, like computers, are growing in importance as vehicles to disseminate knowledge. It is for this reason that he recommends that convention of form, length, and access be included in an expanded definition of scholarship.

In the study done by Pellino et al, (1984), six dimensions of scholarship emerged from their survey of approximately 1,000 faculty members and 55 administrator in 24 colleges and universities. These included: scholarship as a professional activity; scholarship as research/publication; scholarship as artistic endeavor; scholarship as community service; scholarship as pedagogy; and scholarship engagement with the novel.

Scholarship as a professional activity was characterized by a faculty's sense of responsibility for maintaining standards of quality through the processes of critique and review and through such activities as presentations and obtaining research funding. Scholarship as research/publication was associated with the commitment to

knowledge production and dissemination through traditional scholarly channels. Scholarship as artistic endeavor implied an orientation and involvement with the arts as evidenced by performance and public aspects of artistic creation as well as enhancing one's own talents. Scholarship as community service was indicated by involvement in service-related activities external to the college or university and included the sharing of the faculty's expertise through consulting services or making presentations to civic or religious organizations. Scholarship as pedagogy clearly centered around activities involving the instructional process. Scholarship as engagement in the novel, considered a new conception, lacks the clarity of the previous five. However, what characterizes activities associated with this dimension is a continued emphasis on the new, or that which integrates one with another. For example, the introduction of scholarship in consulting could be viewed as a manifestation of scholarship as community service.

According to DeYoung (1985) the discussions of scholarship and consistent with technological arguments in this area, is the assumption that whatever scholarship is, there must some tangible component of it which can be quantified. It is his contention that this assumption underscores the continued penetration and stronghold that the technological myth continues to have on institutions. The very concept of "scholarly productivity" confuses efficiency and rationality with reflection and creativity. His definition of scholarship is less linked to the scientific model and includes creative efforts which contribute to the discovery of new information, the

generation of new hypotheses, the publication of improved theoretical insights for explaining individual and/or philosophical relationships.

Miller (1984) believes that scholarship is a state of mind which includes the following dimensions: content mastery, an inquiring attitude, rigorous examination of all evidence, accuracy in the use and interpretation of data, a willingness to discard the old for the new, and productivity. He feels that these dimensions should be present in three specific aspects of scholarship: presentations, publication, and research. Presentations include speeches, panel participation, and workshops. He cautions that publication, as an element of scholarship which is generally subsumed under research, should be more than counting citations, or crediting those only appearing in refereed journals. Research according to Miller, satisfies curiosity, solves problems, proves or tests hypotheses, and enhances professional growth. As such, avenues for communicating research results need to be opened, and sometimes this may, by nature and circumstance, be outside of what has been traditionally defined and accepted as "scholarly journals."

Hays (1989) agrees with the traditional "tangible and quantifiable" aspects of a definition of scholarship. However, she feel that this element separates artistic creativity and traditional scholarship, and advocates incorporating artistic and creative equivalents into a definition of scholarship. In order for this to happen, she believes that academic institutions must first accept that artistic and creative efforts are equivalent to, and worthy of, scholarship. To help effect this change in thinking, she recommends a definition which includes bringing about something new and valuable,

the combining or organizing of existing materials into a new form, or any product of the power of scientific, artistic, or practical construction.

Thomas (1989) defines scholarship as the essence of the teaching-learning process---the pursuit of knowledge. The author feels that unless broad definitions of scholarship are accepted, there is a temptation to become too narrow in focus resulting a loss of quality which naturally comes with diversity of thought and expression. He argues that academe has outgrown its traditional symbols and images, and calls for a more accurate and contemporary image of educational institutions which portray scholarship in a broader, diverse, more inclusive context.

Boyer (1990) advocates scholarship which would be inclusive of four overlapping, but separate functions: the scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching. The first type of scholarship, that of discovery, is closely akin to research. It contributes to human knowledge, confronts the unknown, and seeks understanding for its own sake.

The scholarship of integration gives meaning to isolated facts and puts them into perspective, such as the case might be when making connections between and across disciplines. This type of scholarship enables specialties to be placed in larger contexts and bring new insights to bear on original research.

The scholarship of application involves scholarly service through shaping public policy, working with public schools, etc. Finally, the scholarship of teaching is the bringing of the most honest and intelligible account of new knowledge to all who try to learn.

Summary

From the results of the literature review, it is evident that much attention has been paid to the study of then construct of scholarship as part of faculty evaluation. The literature acknowledges and re-affirms the use of the traditional model of research, teaching, and service for the purpose of evaluating the performance of faculty across disciplines and institutions. However, the literature suggests that the ordering of the elements of the model differs, or need to differ, by discipline, institutional type, and institutional purpose.

In doctoral-granting institutions, especially in the arts and sciences, scholarship is equated with research as measured by publication, and is the most important criterion upon which faculty evaluations are based. Teaching is the second important criterion followed by service. There are no studies in the literature which delineate the variety of perspectives that exist among faculty in schools of education with varying levels of experience and productivity about the ordering of the model's criteria.

The literature currently defines scholarship as research and publication, the constructs of which are complex and lack clarity. According to the literature, faculty generally agree with the use of the traditional model of research, teaching, and service as part of the evaluative process. However, in the social sciences, faculty feel that too much emphasis is placed on research and that there is undue pressure to publish. There are no studies about the perceptions of faculty in schools of education on this subject. There are also no studies in education which consider

variables such as the level of experience and productivity on faculty perceptions of scholarship.

The literature reveals that administrators in doctoral-granting institutions also agree with the use of the traditional model they rank research and publication as the most important criteria used in faculty evaluation. Generally speaking, research and publication are seen not only as measures of faculty productivity for the purpose of evaluation, but are also viewed as ways to enhance an institution's prestige.

Measures of evaluating scholarship vary from institution to institution. There are no precise indicators of these measures or methods, nor are there practices which codify these measures. However, the measures commonly identified have been grouped into quantitative and qualitative categories. The primary quantitative measure is that of publication counts. This method does not operate equally across disciplines or institutions. The literature is lacking in studies which delineate the varying of perspectives of faculty in a school of education with varying levels of experience and productivity about the use of this method, or the manner in which it is codified in schools of education.

A common qualitative measure is that of citation analysis. Once again, according to the literature, this method does not account for differences in institutions or disciplines. There is little information about the perspectives of faculty in a school of education with varying levels of experience and productivity about the use of this method in evaluating their performance.

Generally speaking, there is overwhelming evidence in the literature which states that the current definition of scholarship is too narrow, lacks clarity, and needs expansion. This evidence is representative of a variety of institutions and disciplines, including education. However, there are no studies which have delineated the variety of perspectives of faculty in a school of education with varying levels of experience and productivity which have defined scholarship.

In conclusion, the criterion of scholarship identified through the literature fall into five major categories: 1) definitions of scholarship; 2) faculty perceptions about scholarship; 3) administrators' perceptions about scholarship; 4) measures and indicators of scholarship; and 4) emerging trends and recommendations about scholarship. These categories appear to differ across and within institutions and disciplines. However, the information obtained from this review should benefit schools of education that are re-examining their faculty evaluation policies and practices. At a minimum, it may expand the term scholarship used in schools of education so that it will no longer be used synonymously with the terms of research and publication.

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